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Leukaemia Section
Short Communication

del(13q) in ALL

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Identity

Note

Deletions of chromosome 13q are a non-random finding in a broad spectrum of haematological neoplasms, including B-cell chronic lymphocytic leukemia (CLL), non-Hodgkin's lymphoma (NHL) and multiple myeloma (MM) and acute myeloid leukaemia (AML).

Clinics and pathology

Disease

Acute lymphoblastic leukaemia (ALL).

Phenotype/cell stem origin

No specific immunophenotype observed.

Epidemiology

A del(13q) chromosome is found in approximately 2% of cases in both adult and childhood disease at presentation. Up to 4% of cases may have some loss of 13q material, either through full monosomy or unbalanced rearrangements. Incidence of chromosome 13 deletions is higher at relapse.

Prognosis

May confer an increased risk of treatment failure but to date has not been shown to be an independent prognostic indicator.

Cytogenetics

Cytogenetics morphological

Various breakpoints reported. The centromeric breakpoint is typically in the 13q12-14 region and telomeric between 13q21 and 13qter. Loss of all or part of 13q14 is common to almost all cases. Occurs as a sole event in approximately 10% of cases. There are also rare reports of translocations also leading to a partial 13q deletion. Monosomy 13 is also reported but occurs very rarely as a sole aberration. Under representation of chromosome 13 is often found in hypotriploid cases.

Additional anomalies

Most cases with del(13q) will have additional aberrations, but there is no consistent picture and the events can include the typical non-random events in ALL.

Genes involved and proteins

Note

Critical region in 13q14 appears to lie telomeric to RB1.

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